AMENDMENT

Claims 1-37 (canceled)

38. (Previously presented) A method for stimulating an immune response, comprising administering to a lymphoid tissue *in vivo* a plasmid vector containing a nucleic acid molecule comprising a B cell expression element operationally linked to a nucleic acid sequence encoding one or more heterologous epitopes, wherein said one or more heterologous epitopes are expressed in a B cell and wherein expression of said one or more heterologous epitopes in said B cell results in stimulation of an immune response.

39. (Currently amended) A method for stimulating an immune response, comprising administering to a lymphoid tissue *ex vivo* a plasmid vector nucleic acid molecule comprising a B cell expression element operationally linked to a nucleic acid sequence encoding one or more heterologous epitopes, wherein said one or more heterologous epitopes are expressed in a B cell, and administering B cells of said lymphoid tissue to an individual, wherein said B cells ~~expressing~~ express said one or more heterologous epitopes ~~to an individual~~, wherein expression of said one or more heterologous epitopes in said B cell results in stimulation of an immune response.

40. (Previously presented) A method for stimulating an immune response, comprising targeting a plasmid vector containing a nucleic acid molecule to a B cell *ex vivo* and administering said B cell to an individual, wherein said nucleic acid molecule comprises a B cell expression element operationally linked to a nucleic acid sequence encoding one or more heterologous epitopes, and wherein said one or more heterologous epitopes are expressed in said B cell and wherein expression of said one or more heterologous epitopes in said B cell results in stimulation of an immune response.

41. (Previously presented) A method for stimulating an immune response, comprising administering to a B cell *in vivo* a plasmid vector containing a nucleic acid molecule comprising a B cell expression element operationally linked to a nucleic acid sequence encoding one or more heterologous epitopes, wherein said one or more heterologous epitopes are expressed in said B

cell and wherein expression of said one or more heterologous epitopes in said B cell results in stimulation of an immune response.

42. (Previously presented) A method of treating a condition, comprising administering to an individual *in vivo* a plasmid vector containing a nucleic acid molecule comprising a B cell expression element operationally linked to a nucleic acid sequence encoding a heterologous polypeptide, wherein said heterologous polypeptide is expressed in a B cell and wherein expression of said one or more heterologous epitopes in said B cell results in stimulation of an immune response which treats a condition.

43. (Previously presented) A method of treating a condition, comprising targeting a plasmid vector containing a nucleic acid molecule to a B cell *ex vivo* and administering said B cell to an individual, wherein said nucleic acid molecule comprises a B cell expression element operationally linked to a nucleic acid sequence encoding one or more heterologous epitopes, and wherein said one or more heterologous epitopes are expressed in said B cell and wherein expression of said one or more heterologous epitopes in said B cell results in stimulation of an immune response which treats a condition.

44. (Previously presented) A plasmid vector containing a nucleic acid molecule comprising a B cell expression element operationally linked to a nucleic acid sequence encoding a heterologous polypeptide antigen, wherein said B cell expression element comprises a B cell promoter and enhancer, wherein said antigen functions as a vaccine.

45. (Previously presented) The plasmid vector of claim 44, wherein said nucleic acid sequence encodes a polypeptide antigen expressed as a fusion with a cytokine.

46. (Previously presented) The plasmid vector of claim 45, wherein said cytokine is selected from the group consisting of granulocyte-macrophage colony-stimulating factor, interleukin-2, interleukin-4, interferon-γ, interleukin-5, interleukin-6, interleukin-7, interleukin-10, interleukin-12 and interleukin- 15.

47. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is granulocyte-macrophage colony-stimulating factor.

48. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-2.

49. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-4.

50. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interferon-γ.

51. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-5.

52. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-6.

53. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-7.

54. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-10.

55. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-12.

56. (Previously presented) The plasmid vector of claim 46, wherein said cytokine is interleukin-15.

57. (Previously presented) A plasmid vector containing a nucleic acid molecule comprising a B cell expression element operationally linked to a nucleic acid sequence encoding a heterologous polypeptide fusion with a cytokine, wherein said B cell expression element comprises a B cell promoter and enhancer.

58. (Previously presented) The plasmid vector of claim 57, wherein said cytokine is selected from the group consisting of granulocyte-macrophage colony-stimulating factor,

interleukin-2, interleukin-4, interferon-γ, interleukin-5, interleukin-6, interleukin-7, interleukin-10, interleukin-12 and interleukin-15.

59. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is granulocyte-macrophage colony-stimulating factor.

60. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-2.

61. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-4.

62. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interferon-γ.

63. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-5.

64. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-6.

65. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-7.

66. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-10.

67. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-12.

68. (Previously presented) The plasmid vector of claim 58, wherein said cytokine is interleukin-15.